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NEWS 3 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances
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NEWS 5 JAN 28 MARPAT searching enhanced
NEWS 6 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication
NEWS 7 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 8 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements
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NEWS 10 FEB 20 PCI now available as a replacement to DPCI
NEWS 11 FEB 25 IFIREF reloaded with enhancements
NEWS 12 FEB 25 IMSPRODUCT reloaded with enhancements
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NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental spectra
NEWS 16 MAR 31 CA/CAplus and CASREACT patent number format for U.S. applications updated
NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI
NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

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07/04/2008, 10716012IIa.trn

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STRUCTURE FILE UPDATES: 6 APR 2008 HIGHEST RN 1012582-98-7
DICTIONARY FILE UPDATES: 6 APR 2008 HIGHEST RN 1012582-98-7

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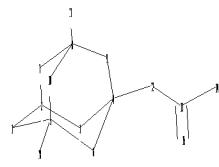
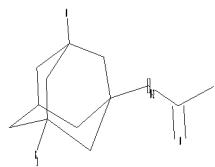
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=>
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chain nodes :

11 12 13 14 15 18

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

4-12 5-18 8-11 12-13 13-14 13-15

ring bonds :

1-2 1-5 2-3 2-7 3-4 4-6 4-9 5-6 5-10 7-8 8-9 8-10

exact/norm bonds :

1-2 1-5 2-3 2-7 3-4 4-6 4-9 5-6 5-10 5-18 7-8 8-9 8-10 8-11 13-15

exact bonds :

4-12 12-13 13-14

G1:H,OH

Match level :

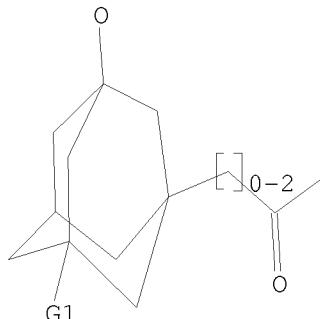
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 18:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR



G1 H, OH

Structure attributes must be viewed using STN Express query preparation.

=> s 11
SAMPLE SEARCH INITIATED 13:32:07 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 473 TO ITERATE

100.0% PROCESSED 473 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 8156 TO 10764
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> s 11 full
FULL SEARCH INITIATED 13:32:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 9554 TO ITERATE

100.0% PROCESSED 9554 ITERATIONS 39 ANSWERS
SEARCH TIME: 00.00.01

L3 39 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 178.82 179.24

FILE 'CAPLUS' ENTERED AT 13:32:14 ON 07 APR 2008
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FILE COVERS 1907 - 7 Apr 2008 VOL 148 ISS 15
FILE LAST UPDATED: 6 Apr 2008 (20080406/ED)

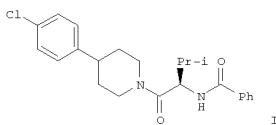
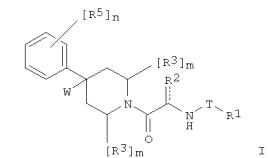
Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s 13
L4 49 L3

=> d ed abs ibib hitstr tot

L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 17 Aug 2007
 GI



AB Title compds. I [T = CO, COO, CONH, CON-alkyl, SO₂; R1 = (un)substituted cyclo/alkyl, (hetero)aryl, heterocyclyl; R2 = cycloalkyl/cyclo/alkyl, alkenyl optionally substituted with OH; R3 at each occurrence = alkyl; or any 2 R3's attached to the same C may form a 3-6 membered ring; W = H, F, OH, CN, NH₂; R5 = halo, CN, alkoxy; W and one R5 together with the C atoms to which each is attached may form an (un)substituted 3-6 membered O containing ring; m at each occurrence = independently 0-2; n = 1-3; and their stereoisomers, prodrugs and pharmaceutically acceptable salts] were prepared as modulators of CCR-1 and MIP-1, especially MIP-1 α receptors. Thus, valine amide II was prepared using N-(tert-butoxycarbonyl)-D-valine, 4-(4-chlorophenyl)piperidine hydrochloride, and benzoic acid. All the invention compds. were evaluated for their chemokine receptor modulatory activity. Methods of treating and preventing inflammatory diseases such as asthma and allergic diseases, as well as autoimmune pathologies such as rheumatoid arthritis and atherosclerosis using said modulators are disclosed.

ACCESSION NUMBER: 2007:912269 CAPLUS
 DOCUMENT NUMBER: 147:277915
 TITLE: Preparation of 4-phenylpiperidine-substituted amino acid derivatives, particularly valine amides, as

L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 modulators of chemokine receptor activity and their use in the treatment of inflammatory and autoimmune diseases

INVENTOR(S): Carter, Percy H.; Cavallaro, Cullen L.; Duncia, John V.; Gardner, Daniel S.; Hynes, John; Liu, Rui-Qin; Santella, Joseph B.; Dodd, Dharmpal S.

PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA

SOURCE: PCT Int. Appl., 515pp.

CODEN: PIXKD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

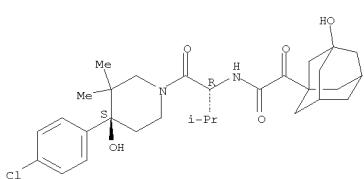
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007092681	A2	20070816	WO 2007-US61012	20070125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RC, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UZ, UG, US, UZ, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CZ, DE, DK, DE, ES, FI, FR, GB, GR, HU, IE, IS, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CP, CO, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070208056	A1	20070906	US 2007-625874	20070123
			PRIORITY APPLN. INFO.: US 2006-762801P	P 20060127
				US 2007-625874 A 20070123

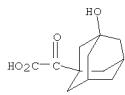
OTHER SOURCE(S): MARPAT 147:277915
 IT 946588-10-9
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of piperidine-substituted amino acid derivs., particularly valine amides, as chemokine receptor modulators)
 RN 946588-10-9 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetamide, N-[(IR)-1-[(4S)-4-(4-chlorophenyl)-4-hydroxy-3-dimethyl-1-piperidinyl]carbonyl]-2-methylpropyl]-3-hydroxy- α -oxo- (CA INDEX NAME)

Absolute stereochemistry.

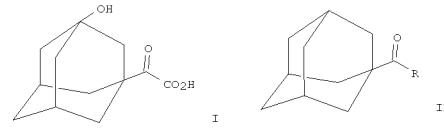
L4 ANSWER 1 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 2 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 28 Jun 2007
 AB The non-proteinogenic amino acid (S)- α -amino-3-hydroxy-1-adamantanecarboxylic acid [i.e., (S)-(3-hydroxy-1-adamantyl)glycine], is a key intermediate required for the synthesis of Saxagliptin (BMS-477118), a dipeptidyl peptidase IV inhibitor under development for treatment of type 2 diabetes mellitus. A keto acid, 3-hydroxy- α -oxo-1-adamantanecarboxylic acid (I), was converted to (S)-(3-hydroxyadamantyl)glycine by reductive amination using a phenylalanine dehydrogenase from Thermoactinomyces intermedius expressed in a modified form in *Pichia pastoris* or *Escherichia coli*. NAD (NAD⁺) produced during the reaction was recycled to NADH (reduced form of NAD) using formate dehydrogenase. *Pichia pastoris* produces an endogenous formate dehydrogenase when grown on methanol and the corresponding gene was cloned and expressed in *E. coli*. The modified phenylalanine dehydrogenase contains two amino acid changes at the C-terminus and a 12-amino acid extension of the C-terminus. The modified enzyme is more effective with keto acid I than the wild-type enzyme, but less effective with the natural substrate, Ph pyruvate. Production of multi-kilogram batches was originally carried out with exts. of *Pichia pastoris* expressing the modified phenylalanine dehydrogenase from *Thermoactinomyces intermedius* and endogenous formate dehydrogenase, and further scaled up using a preparation of the two enzymes expressed in *E. coli*.
 ACCESSION NUMBER: 2007:700078 CAPLUS
 DOCUMENT NUMBER: 147:386225
 TITLE: Preparation of an amino acid intermediate for the dipeptidyl peptidase IV inhibitor, Saxagliptin, using a modified phenylalanine dehydrogenase
 AUTHOR(S): Hanson, Ronald L.; Goldberg, Steven L.; Brzozowski, David B.; Tully, Thomas P.; Cazzulino, Dana; Parker, William L.; Lyngberg, Olav K.; Vu, Truc C.; Wong, Michael K.; Patel, Ramesh N.
 CORPORATE SOURCE: Process Research and Development, Bristol-Myers Squibb, New Brunswick, NJ, 08903, USA
 SOURCE: Advanced Synthesis & Catalysis (2007), 349(8+9), 1369-1378
 CODEN: ASCAF7; ISSN: 1615-4150
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 IT 709031-28-7, 3-Hydroxy- α -oxo-1-adamantanecarboxylic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of α -amino(hydroxy)adamantanecarboxylic acid (intermediate for Saxagliptin) via reductive amination of hydroxy- α -oxo-1-adamantanecarboxylic acid using modified phenylalanine dehydrogenase)
 RN 709031-28-7 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT



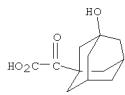
AB 3-Hydroxyadamantaneglyoxylic acid (I) is prepared by the oxidation of 1-acyladamantanes (II; R = C1-5 hydrocarbyl, CH2OH, CHO, CO2H; e.g., 1-acetyladamantane) with an oxidant (e.g., potassium permanganate) under oxidizing conditions.

ACCESSION NUMBER: 20061280989 CAPLUS
DOCUMENT NUMBER: 146:27567
TITLE: Oxidative process for the preparation of 3-hydroxyadamantaneglyoxylic acid from 1-acyladamantanes
INVENTOR(S): Berner, Mathias; Partanen, Reijo; Salakka, Auli; Somersalo, Pekka
PATENT ASSIGNEE(S): Kemfine Oy, Finland
SOURCE: PCT Int. Appl., 15pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006128952	A1	20061207	WO 2006-FI167	20060529
W: AE, AG, AL, AM, AT, A0, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, T0, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	W: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	W: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR	FI 2005000577	2005-577
EP 1885680	A1	20080213	EP 2006-743535	20060529
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR	FI 20061201	20061201	EP 2006-743535

OTHER SOURCE(S): CASREACT 146:27567; MARPAT 146:27567
IT 709031-28-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidative process for the preparation of
3-hydroxyadamantaneglyoxylic acid
from 1-acyladamantanes)
RN 709031-28-7 CAPLUS
CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA
INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB 3-Hydroxyadamantaneglyoxylic acid (I) is prepared by the oxidation of 1-acyladamantanes (II; R = C1-5 hydrocarbyl, CH2OH, CHO, CO2H; e.g., 1-acetyladamantane) with an oxidant (e.g., potassium permanganate) under oxidizing conditions.

ACCESSION NUMBER: 20061251710 CAPLUS
DOCUMENT NUMBER: 146:27566
TITLE: Oxidative process for the preparation of 3-hydroxyadamantaneglyoxylic acid from 1-acyladamantanes
INVENTOR(S): Berner, Mathias; Partanen, Reijo; Salakka, Auli; Somersalo, Pekka
PATENT ASSIGNEE(S): Kemfine Oy, Finland
SOURCE: U.S. Pat. Appl. Publ., 6pp.
CODEN: USXXCO

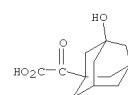
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060270870	A1	20061130	US 2005-139624	20050531
US 7205432	B2	20070417		

PRIORITY APPLN. INFO.: US 2005-139624 20050531

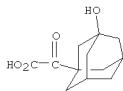
OTHER SOURCE(S): CASREACT 146:27566; MARPAT 146:27566

IT 709031-28-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(oxidative process for the preparation of
3-hydroxyadamantaneglyoxylic acid
from 1-acyladamantanes)
RN 709031-28-7 CAPLUS
CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA
INDEX NAME)



L4 ANSWER 5 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 28 Sep 2006
 AB Conversion of an α,α -dichloroester to the corresponding α -keto acid was unexpectedly complicated by a novel 1,4-homofragmentation. Investigation of the kinetics of this reaction revealed a mechanism involving an α -lactone intermediate, which can lead to both the desired α -keto acid and the 1,4-homofragmentation, with the product distribution being dependent upon reaction conditions. This information allowed development of a process that affords the α -keto acid exclusively and should be generally applicable to the preparation of α -keto acids from α,α -dichloroesters or acids.

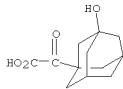
ACCESSION NUMBER: 20061002169 CAPLUS
 DOCUMENT NUMBER: 145:438205
 TITLE: Novel 1,4-Homofragmentation via an α -Lactone
 AUTHOR(S): Godfrey, Jollie D., Jr.; Fox, Rita T.; Buono, Frederic
 CORPORATE SOURCE: G., Gouglas, Jack Z.; Mallery, Mary F.
 Department of Process Research and Development and
 Department of Solid State Chemistry, Pharmaceutical Research Institute, Princeton, NJ, 08543-4000, USA
 SOURCE: Journal of Organic Chemistry (2006), 71(22), 8647-8650
 PUBLISHER: CODEN: JOCEAH; ISSN: 0022-3263
 American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 145:438205
 IT 709031-28-7P RL: SPN (Synthetic preparation); PREP (Preparation) (1,4-homofragmentation via α -lactone)
 RN 709031-28-7 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

IT 709031-28-7P RL: SPN (Synthetic preparation); PREP (Preparation) (oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane)
 RN 709031-28-7 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 24 Mar 2006
 AB The title process comprises subjecting 1-acetyl-3-hydroxyadamantane to a liquid-phase oxidation with a permanganate salt (e.g., sodium permanganate) to produce 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid, or a salt, with acidification (e.g., hydrochloric acid) to form the free acid.

ACCESSION NUMBER: 20061273089 CAPLUS
 DOCUMENT NUMBER: 144:311720
 TITLE: Oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane

INVENTOR(S): Williams, Eric L.
 PATENT ASSIGNEE(S): Albemarle Corporation, USA
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

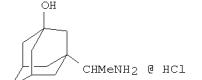
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US 20060063950	A1	20060323	US 2005-228055	20050916
US 7250529	B2	20070731		
WO 2006034175	A1	20060330	WO 2005-US33446	20050916
W: AF, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IR, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MK, MZ, NA, NO, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SI, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CO, CI, CM, GA, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, RG, KZ, MD, RU, TJ, TM				
EP 1789376	A1	20070530	EP 2005-797765	20050916
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CN 101023052	A	20070822	CN 2005-80031300	20050916
IN 2007DN01812	A	20070817	IN 2007-DN1812	20070308

PRIORITY APPLN. INFO.: US 2004-610893P P 20040917

WO 2005-US33446 W 20050916

OTHER SOURCE(S): CASREACT 144:311720
 IT 39917-38-9, 1-Acetyl-3-hydroxyadamantane
 RL: RCT (Reactant); RACT (Reactant or reagent) (oxidative process for the preparation of 2-(3-hydroxy-1-adamantyl)-2-oxoacetic acid or its salts from 1-acetyl-3-hydroxyadamantane)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

L4 ANSWER 7 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 17 Mar 2006
 GI



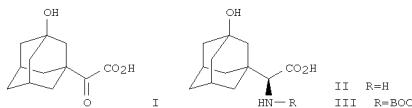
AB The title compound (I) was prepared in 5 steps from 3-chloro-1-adamantanecarboxylic acid, and the steps were optimized.

ACCESSION NUMBER: 20061236996 CAPLUS
 DOCUMENT NUMBER: 145:180462
 TITLE: Hydroxymepantadine - a new adamantane-derivative antiherpetic drug: reaction sequence for its manufacture

AUTHOR(S): Ovchinnikov, K. A.; Pоздняков, В. В.; Moiseev, I. K.
 CORPORATE SOURCE: Kafedra Org. Khim. Samar. Gos. Tekh. Univ., Samar, Russia
 SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (2005), 48(10), 71-73
 PUBLISHER: Ivanovskii Gosudarstvennyi Khimiko-Tekhnologicheskii Universitet
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 145:188462
 IT 39917-38-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (optimization of hydroxymepantadine preparation)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 10 Nov 2005
 GI



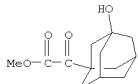
AB A process for production of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV is provided which employs a BOC-protected amine of the structure (III) prepared by subjecting an acid of the structure (I) to reduce amination by treating the acid with ammonium formate, NAD, dithiothreitol and partially purified phenylalanine dehydrogenase/formate dehydrogenase enzyme concentrate (PDH/FDH) and without isolating treating the resulting amine of the structure (II) with di-tert-Bu dicarbonate to form the BOC-protected amine.

ACCESSION NUMBER: 2005:1192917 CAPLUS
 DOCUMENT NUMBER: 143:458679
 TITLE: Chemoenzymic preparation of dipeptidyl IV inhibitors
 INVENTOR(S): Politinov, Michael; Cadin, Matthew M.; Skonezny, Paul M.; Chen, Jason G.
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
 SOURCE: PCT Int. Appl., 73 pp.

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

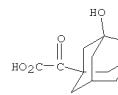
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005106011	A2	20051110	WO 2005-US12615	20050413
WO 2005106011	A3	20061026		
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L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 8 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 MR, NE, SN, TD, TG
 US 20050260712 A1 20051124 US 2005-104015 20050413
 AU 2005238442 A1 20051110 AU 2005-238442 20050413
 CA 25633903 A1 20051110 CA 2005-25633903 20050413
 EP 1737970 A2 20070103 EP 2005-735335 20050413
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU
 CN 1968925 A 20070523 CN 2005-80019512 20050413
 BR 2005009890 A 20071030 BR 2005-9890 20050413
 JP 2007532137 T 20071115 JP 2007-508513 20050413
 MX 2006PA11735 A 20061211 MX 2006-PA11735 20061010
 IN 2006DN05914 A 20070713 IN 2006-DN5914 20061011
 NO 2006005191 A 20061113 NO 2006-5191 20061113
 KR 2007006903 A 20070111 KR 2006-723783 20061113
 PRIORITY APPLN. INFO.: US 2004-561986P P 20040414
 WO 2005-US12615 W 20050413

OTHER SOURCE(S): CASREACT 143:458679
 IT 709031-28-7P
 RL: BCP (Biochemical process); CPS (Chemical process); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); RCT (Reactant); SPP (Synthetic preparation); BIOL (Biological study); PREP (Process); PROC (Process); RACT (Reactant or Reagent) (chemoenzymic preparation of dipeptidyl IV inhibitors)
 709031-28-7 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA INDEX NAME)



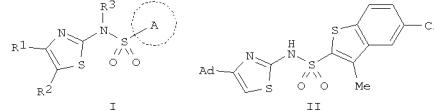
IT 709031-33-4P
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); RCT (Reactant); SPP (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent) (chemoenzymic preparation of dipeptidyl IV inhibitors)
 709031-33-4 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo-, methyl ester (CA INDEX NAME)

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 20 Oct 2005

GI



AB Title compds. represented by the formula I [wherein R1 = hydroxy, halo or alkyl substituted adamantane-1-yl; R2 = H, alkoxy carbonyl, alkyl; R3 = H, alkyl, alkenyl or alkyne]; ring A = (un)substituted (hetero)aryl; and pharmaceutically acceptable salts thereof] were prepared as 11 β -HS1 (11 β -hydroxy steroid dehydrogenase type 1) inhibitors. For example, reaction of 1-adamantyl bromomethyl ketones with thiourea to give 4-(1-adamantyl)-2-aminothiazole¹HBr, followed by substitution with 5-chloro-3-methyl-benzo[b]thiophene-2-sulfonyl chloride provided II. II showed inhibition of 11 β -HS1 with an IC50 value of 16 nM.

ACCESSION NUMBER: 2005:1126675 CAPLUS
 DOCUMENT NUMBER: 143:40598
 TITLE: Preparation of adamantyl thiazole derivatives as 11 β -HS1 inhibitors
 INVENTOR(S): Fukushima, Hiroshi; Takahashi, Masato; Busujima, Tsuyoshi; Kawaguchi, Takanori
 PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan
 SOURCE: PCT Int. Appl., 99 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097764	A1	20051020	WO 2005-JP7106	20050406
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JE, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2007261945	A	20071011	JP 2004-113205	20040407
PRIORITY APPLN. INFO.:			JP 2004-113205	A 20040407

OTHER SOURCE(S): MARPAT 143:40598
 IT 39917-38-9P 42825-02-5P

07/04/2008, 10716012IIa.trn

L4 ANSWER 9 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of N-(1-adamantyl)thiazolyl sulfonamide derivs. as
 11 β -HSD1 inhibitors)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

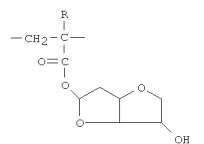


RN 42825-02-5 CAPLUS
 CN Ethanone, 1-(3-methoxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 27 Aug 2004
 GI



AB The title composition contains an alkali solubilizable resin, an actinic ray- or radiation-sensitive acid generator, and fluoro and/or silicone surfactant, wherein the resin has repeating unit I (R = H, alkyl). The composition provides consistent pattern without depending on covering ratios of a photomask.

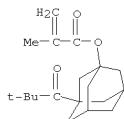
ACCESSION NUMBER: 2004:701022 CAPLUS
 DOCUMENT NUMBER: 141:233189
 TITLE: Positive far UV-sensitive photoresist compositions
 INVENTOR(S): Sator, Kenichiro; Kodama, Kunihiko
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004240387	A	20040826	JP 2003-75896	20030319
KR 2004050881	A	20040617	KR 2003-89268	20031210
PRIORITY APPLN. INFO.:			JP 2002-358305	A 20021210
			JP 2003-75896	A 20030319

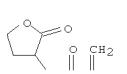
OTHER SOURCE(S): MARPAT 141:233189
 IT 745831-50-9P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (pos. photoresist compns.)
 RN 745831-50-9 CAPLUS
 CN D-Glucitol, 1,4:3,6-dianhydro-, mono(2-methyl-2-propenoate), polymer with 3-(2,2-dimethyl-1-oxopropyl)tricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate

L4 ANSWER 10 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 (9CI) (CA INDEX NAME)

CM 1
 CRN 745831-49-6
 CMF C19 H28 O3



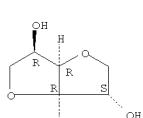
CM 2
 CRN 195000-66-9
 CMF C8 H10 O4



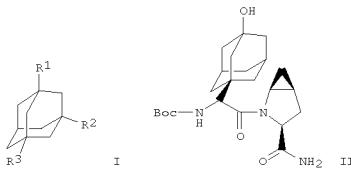
CM 3
 CRN 745831-43-0
 CMF C10 H14 O5
 CCI IDS

CM 4
 CRN 652-67-5
 CMF C6 H10 O4

Absolute stereochemistry. Rotation (+).



L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 27 Jun 2004
 GI



AB The invention provides methods and compds. for the production of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV.
 IV. Also described are methods for the asym. reductive amination of (3-hydroxyadamantan-1-yl)oxoacetic acid. Adamantane derivs. I [R1 is H or OH; R2 is C(O)COR4, C(O)NR5R6, C(X)nCOR4 or C(NR7R8)COR4, where X is halo, n is 1-2, R4 is alkoxy, NH2 or OH, and R5-R8 are H or carbalkoxy; R3 is H, OH or NR9C(O)R10, where R9 is carboxy-substituted alkyl or aryl and R10 is 3-cyano-2-azabicyclo[3.1.0]hex-2-yl] or their pharmaceutically-acceptable salts are claimed. Thus, adamantyl-substituted glycynamide derivative II (Boc = tert-butoxycarbonyl) was prepared via amidation of Boc-protected (S)- α -amino-3-hydroxy-1-adamantanecetic acid.

ACCESSION NUMBER: 2004:515478 CAPLUS
 DOCUMENT NUMBER: 141:54618
 TITLE: Preparation of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV
 INVENTOR(S): Vu, Truc Chi; Brzozowski, David B.; Fox, Rita; Godfrey, Jollie Duaine, Jr.; Hanson, Ronald L.; Kolotuchin, Sergei V.; Mazzullo, John A., Jr.; Patel, Ramesh N.; Wang, Jianji; Wong, Kwok; Yu, Jurong; Zhu, Jason; Magnin, David R.; Augeri, David J.; Hamann, Lawrence G.
 PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
 SOURCE: PCT Int. Appl., 101 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ED Entered STN: 27 Jun 2004
 GI

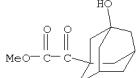
 WO 2004052850 A2 20040624 WO 2003-US38558 20031204
 WO 2004052850 A3 20060302
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UC, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 20050090539 A1 20050428 US 2003-716012 20031118
 CA 2508619 A1 20040624 CA 2003-2508619 20031204
 AU 2003297647 A1 20040630 AU 2003-297647 20031204
 EP 1581487 A2 20051005 EP 2003-812799 20031204
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 BR 2003017139 A 20051129 BR 2003-17139 20031204
 CN 1791401 A 2006021 CN 2003-80109651 20031204
 JP 2006516121 T 20060622 JP 2004-559282 20031204
 MX 2005PA05970 A 20050818 MX 2005-PA5970 20050603
 IN 2008DN00420 A 20080215 IN 2008-DN420 20080115
 PRIORITY APPLN. INFO.: US 2002-431814P P 20021209
 WO 2003-US38558 W 20031204
 IN 2005-DN2279 A3 20050530

OTHER SOURCE(S): CASREACT 141:54618; MARPAT 141:54618
 IT 709031-28-7P 709031-33-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of cyclopropyl-fused pyrrolidine-based inhibitors of dipeptidyl peptidase IV)
 RN 709031-28-7 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo- (CA INDEX NAME)



RN 709031-33-4 CAPLUS
 CN Tricyclo[3.3.1.13,7]decane-1-acetic acid, 3-hydroxy- α -oxo-, methyl

L4 ANSWER 11 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ester (CA INDEX NAME)

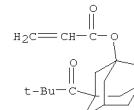
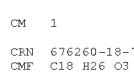


L4 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 02 Apr 2004
 AB The compns., useful for manufacturing semiconductor devices, comprise (A) resins with Tg 120-180° increasing their alkali solubility by acid-induced decomposition, (B) photoacid generators, and (C) solvents, wherein the resins have partial structures of OH groups substituted by alicyclic hydrocarbon groups. The alicyclic structures may have adamantan groups.
 ACCESSION NUMBER: 2004:271951 CAPLUS
 DOCUMENT NUMBER: 140:294796
 TITLE: Excimer laser-sensitive chemically amplified photoresist compositions with high sensitivity, photore sist, and etching resistance
 INVENTOR(S): Sato, Kenichiro
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 81 pp.
 CODEN: JKXXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

 JP 2004101642 A 20040402 JP 2002-260191 20020905
 JP 4031327 B2 20080109 KR 2003-59746 20030828
 KR 2004030278 A 20040409 JP 2002-260191 A 20020905
 PRIORITY APPLN. INFO.:

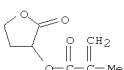
IT 676260-19-8P
 RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (excimer laser-sensitive photoresists with high sensitivity, resolution, and etching resistance)
 RN 676260-19-8 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 3-(2-dimethyl-1-oxopropyl)tricyclo[3.3.1.13,7]dec-1-yl 2-propenoate, tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate and 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX NAME)



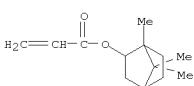
L4 ANSWER 12 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

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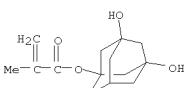
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CMF C8 H10 O4

CM 3

CRN 128946-20-3
CMF C13 H20 O2

CM 4

CRN 115522-15-1
CMF C14 H20 O4

L4 ANSWER 13 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 09 Oct 2003

AB 3-Chloro-1-acetyladamantane was subjected to substitution reactions with C6H6, PhMe, AgF, and NaO to give the corresponding 3-substituted derivs. 3-Hydroxy-1-acetyladamantane was treated with HCO2H, CHCl:CCl2, and CH2:CCl2 to give the 3-carboxylic, 3-chloroacetic, and 3-acetic acids.

ACCESSION NUMBER: 2003:791319 CAPLUS

DOCUMENT NUMBER: 140:253274

TITLE: Synthesis of 3-k-1-acetyladamantanes by substitution in 3-chloro- and 3-hydroxy-1-acetyladamantanes

AUTHOR(S): Pozdnyakov, V. V.; Moiseev, I. K. Samara State Technical University, Samara, 443100, Russia

SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2003), 39(5), 739-741

CODEN: RJOCEQ; ISSN: 1070-4280

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 140:253274

IT 39917-38-9, 1-Acetyl-3-hydroxyadamantane
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of 3-k-1-acetyladamantanes by substitution in 3-chloro- and 3-hydroxy-1-acetyladamantanes)

RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.13,7]dec-1-yl) - (CA INDEX NAME)

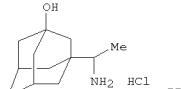
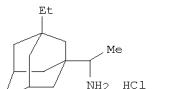


REFERENCE COUNT:

3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 14 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
ED Entered STN: 11 Jun 2003

GI



AB Chemical synthesis of 3-substituted analogs of remantadine is described. Derivs. I and II when compared with remantadine had not only potent activity against ethalon herpes simplex type 1 virus strain but also were active against herpes virus resistant to aciclovir. Compound II demonstrated virucidal effect. Combination of II + aciclovir had additive effect against ethalon herpes simplex type 1 virus strain. Investigated 3-substituted analogs demonstrated low activity in the model system of influenza virus A. No antiviral activity was demonstrated in the model system of Sindbis virus (though compds. were evaluated in subtoxic concns.).

ACCESSION NUMBER: 2003:444131 CAPLUS

DOCUMENT NUMBER: 139:239741

TITLE: 3-Substituted analogs of remantadine; synthesis and antiherpetic activity in culture of Vero cells

AUTHOR(S): Moiseev, I. K.; Andronova, V. L.; Pozdnyakov, V. V.; Makarova, N. V.; Galegov, G. A.

CORPORATE SOURCE: D. I. Ivanovsky Res. Inst. of Virology, Russian Academy of Med. Sciences, Moscow, Russia

SOURCE: Antibiotiki i Khimioterapiya (2002), 47(11), 9-12

CODEN: ANKHEW; ISSN: 0235-2990

PUBLISHER: Izdatel'skii Dom "Krasnaya Ploshchad"

DOCUMENT TYPE: Journal

LANGUAGE: Russian

IT 39917-38-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and antiherpetic activity of 3-substituted analogs of remantadine)

RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.1.13,7]dec-1-yl) - (CA INDEX NAME)

L4 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
ED Entered STN: 12 May 2002

GI



AB High-mol. compds. for photoresists, each having at least one skeleton represented by the general formula -RC(Rx1)2(ORx1), I, II, or III: -RC(Rx1)2(ORx1) I II III (R = alicyclic skeleton; Rx1= electron-attracting group, H, monovalent organic group). The compds. shows small absorption towards s160 nm light and provides the fine resist pattern of nanometer size and of the high etching resistance.

ACCESSION NUMBER: 2002:353506 CAPLUS

DOCUMENT NUMBER: 136:377479

TITLE: High-molecular compounds for photoresists, monomeric compounds, photosensitive resin compositions, method for forming patterns with the compositions, and process for production of electronic components

INVENTOR(S): Shida, Naomi; Ushirogouchi, Toru; Naito, Takuwa

PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan

SOURCE: PCT Int. Appl., 321 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

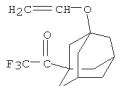
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002036646	A1	20020510	WO 2001-JP9567	20011031
W: KR, US				
JP 2002201219	A	20020719	JP 2001-295012	20010926
JP 4034538	B2	20080116		
US 20030235781	A1	20031225	US 2003-425848	20030430
US 6974658	B2	20051213		
			JP 2000-332358	A 20001031

L4 ANSWER 15 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 JP 2001-295012 A 20010926
 WO 2001-JP9567 A1 20011031

OTHER SOURCE(S): MARPAT 136:377479
 IT 424826-92-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (monomer of high-mol. compds. for photoresists)
 RN 424826-92-6 CAPLUS
 CN Ethanone, 1-[3-(ethoxyloxy)tricyclo[3.3.1.13,7]dec-1-yl]-2,2,2-trifluoro-
 (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 21 Feb 2002
 AB Iffland's reactions of 1-adamantyl Me ketone, (1-adamantyl)acetone, 3-hydroxy-1-adamantyl Me ketone, and N-bromosuccinimide gave bromonitro derivs. which, on reduction with sodium borohydride, afforded 1-(1-adamantyl)-1-nitroethane, 1-(1-adamantyl)-2-nitropropane, and 1-(3-hydroxy-1-adamantyl)-1-nitroethane.
 ACCESSION NUMBER: 2002:136602 CAPLUS
 DOCUMENT NUMBER: 137:5932
 TITLE: Iffland's reaction with methyl ketone oximes of the adamantane series
 AUTHOR(S): Makarova, N. V.; Moiseev, I. K.; Zemtsova, M. N.
 CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia
 SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(10), 1435-1437
 CODEN: RJOCEQ; ISSN: 1070-4280
 PUBLISHER: MAIK Nauka/Interperiodica Publishing
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 137:5932
 IT 39917-38-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (Iffland's reaction with Me ketone oximes of the adamantane series)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 07 Feb 2002
 AB A general procedure was proposed for synthesizing 3-R-1-adamantyl Me ketones from the corresponding adamantane carbonyl chlorides and di-Me malonate in toluene (benzene) in the presence of sodium hydroxide. Intermediate di-Me (3-R-1-adamantylcarbonyl)malonates can also be isolated. The resulting ketones reacted with hydroxylamine and formamide in the presence of formic acid to give the corresponding oximes and 1-(3-R-1-adamantyl)ethylamines. Bi-Me (3-R-1-adamantylcarbonyl)malonates reacted with phenylhydrazine to give adamantyl-substituted 4,5-dihydropyrazol-1-one derivs.
 ACCESSION NUMBER: 2002:102512 CAPLUS
 DOCUMENT NUMBER: 136:401464
 TITLE: Synthesis and reactivity of 3-R-1-adamantyl methyl ketones
 AUTHOR(S): Pozdnyakov, V. V.; Makarova, N. V.; Moiseev, I. K.
 CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia
 SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(9), 1228-1231
 CODEN: RJOCEQ; ISSN: 1070-4280
 PUBLISHER: MAIK Nauka/Interperiodica Publishing
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 136:401464
 IT 39917-38-9
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (Preparation and reactivity of 3-R-1-adamantyl Me ketones)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 08 Jan 2002
 AB Gas-liquid and thin-layer chromatog. were used to monitor the composition of reaction mixts. during synthesis of the title compds. Retention indexes were determined for 12 oxygenated adamantane derivs.
 ACCESSION NUMBER: 2002:14904 CAPLUS
 DOCUMENT NUMBER: 136:340420
 TITLE: Chromatographic monitoring of 3-hydroxy-1-adamantyl methyl ketone and 2-adamantylidenecyanoacetophenone synthesis
 AUTHOR(S): Lobanov, A. L.; Sinitsyn, M. V.; Kolotvin, A. A.
 CORPORATE SOURCE: Samar. Gos. Univ., Samara, Russia
 SOURCE: Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (2001), 44(5), 109-112
 CODEN: IZVKAR; ISSN: 0579-2991
 PUBLISHER: Ivanovskii Gosudarstvennyi Khimiko-Tekhnologicheskii Universitet
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 IT 39917-38-9
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (chromatog. monitoring of 3-hydroxy-1-adamantyl Me ketone and 2-adamantylidenecyanoacetophenone synthesis)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 20 Dec 2001
 AB The Claisen-Schmidt reaction between 3-hydroxy-1-adamantyl Me ketone and aromatic aldehydes (benzaldehyde and 2-thiophenecarbaldehyde) in 2-propanol
 catalyzed by 50% aqueous potassium hydroxide affords 1-(3-hydroxy-1-adamantyl)-3-R-2-propen-1-ones. The reaction of 3-hydroxy-1-adamantyl Me ketone with

Et formate and sodium in benzene gives rise to sodium enolate of 1-(3-hydroxy-1-adamantyl)-3-hydroxy-2-propen-1-one. The latter compound treated with amine hydrochlorides in 50% aqueous alc. furnishes 1-(3-hydroxy-1-adamantyl)-3-NR'-amino-2-propen-1-ones.

ACCESSION NUMBER: 2001:916994 CAPLUS

DOCUMENT NUMBER: 136:279138

TITLE: Synthesis of unsaturated ketones from 3-hydroxy-1-adamantyl methyl ketone

AUTHOR(S): Makarova, N. V.; Pimenov, A. A.; Zemtsova, M. N.; Moiseev, I. K.

CORPORATE SOURCE: Samara State Technical University, Samara, 443010, Russia

SOURCE: Russian Journal of Organic Chemistry (Translation of Zhurnal Organicheskoi Khimii) (2001), 37(8), 1099-1101

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:279138

IT 39917-38-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)

RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



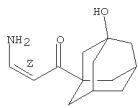
IT 406695-83-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)

RN 406695-83-8 CAPLUS

CN 2-Propen-1-one, 3-hydroxy-1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-, monosodium salt (9CI) (CA INDEX NAME)

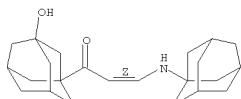
L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 406695-87-2 CAPLUS

CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-3-(tricyclo[3.3.1.13,7]dec-1-ylamino)-, (2Z)- (CA INDEX NAME)

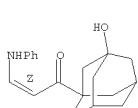
Double bond geometry as shown.



RN 406695-88-3 CAPLUS

CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-3-(phenylamino)-, (2Z)- (CA INDEX NAME)

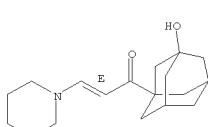
Double bond geometry as shown.



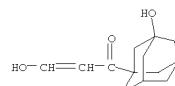
RN 406695-89-4 CAPLUS

CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-3-(1-piperidinyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● Na

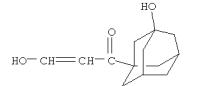
IT 406695-84-9P 406695-85-0P 406695-86-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of unsatd. ketones from hydroxyadamantyl Me ketone via Claisen-Schmidt condensation of hydroxyadamantyl ketone and arom aldehydes)

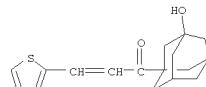
RN 406695-84-9 CAPLUS

CN 2-Propen-1-one, 3-hydroxy-1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



RN 406695-85-0 CAPLUS

CN 2-Propen-1-one, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-3-(2-thienyl)- (CA INDEX NAME)



RN 406695-86-1 CAPLUS

CN 2-Propen-1-one, 3-amino-1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)-, (2Z)- (CA INDEX NAME)

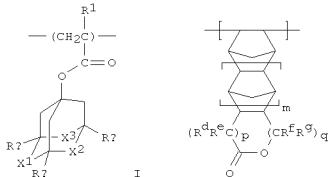
Double bond geometry as shown.

L4 ANSWER 19 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

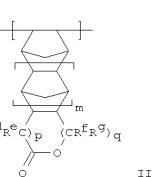
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 04 Sep 2001
 GI

L4 ANSWER 20 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



I



II



AB Photoresist compns. contain polymers containing monomer units I and/or II (R1, R2-Rg = H, Me; X1-X3 = CH2, CO2; at least one of X1-X3 is CO2; m, p, q = 0-2) and photoacid generators. The compns. show good adhesion to substrates such as Si and can precisely form fine patterns in semiconductor manufacturing.

ACCESSION NUMBER: 2001:644598 CAPLUS

DOCUMENT NUMBER: 135:218729

TITLE: Lactone ring-containing polymers and resin compositions for photorests

INVENTOR(S): Shinoda, Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira

PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

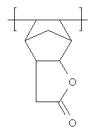
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001240625	A	20010904	JP 2000-49549	20000225
PRIORITY APPLN. INFO.:				20000225

IT 39917-38-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of lactone ring-containing polymers for photoresists)

L4 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 10 Aug 2001
 GI

L4 ANSWER 21 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 (polymeric compd. for photoresist and resin compn. for photoresist)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



I



REFERENCE COUNT: THIS

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

AB The invention relates to a polymeric compound for photoresists which comprises monomer units represented by formula I; and a resin composition for photoresists which comprises the polymeric compound and a photo-acid generator. The composition, which contains 3-(hydroxymethyl)-2-norbornane carboxylic acid γ -lactone based repeating unit, has high adhesion to substrates and can precisely form a fine pattern.

ACCESSION NUMBER: 2001:582183 CAPLUS

DOCUMENT NUMBER: 135:160158

TITLE: Polymeric compound for photoresist and resin composition for photoresist

INVENTOR(S): Akira, Funaki, Yoshinori; Tsutsumi, Kiyoharu; Takaragi,

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

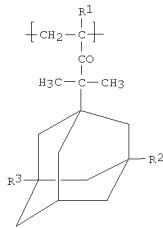
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001057597	A1	20010809	WO 2001-JP515	20010126
W: KR, US RW: DE, FR, GB				
JP 2001215703	A	20010810	JP 2000-24527	20000201
EP 1172694	A1	20020116	EP 2001-949041	20010126
R: DE, FR, GB				
TW 538311	B	20030621	TW 2001-90101862	20010131
US 20020169266	A1	20021114	US 2001-937910	20010119
US 6552143	B2	20030422		
US 20040006189	A1	20040108	US 2003-375129	20030228
US 6806335	B2	20041019		
PRIORITY APPLN. INFO.:			JP 2000-24527	A 20000201
			WO 2001-JP515	W 20010126
			US 2001-937910	A1 20011019

IT 39917-38-9
 RL: RCT (Reactant); RACT (Reactant or reagent)

L4 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 15 May 2001
 GI



I

AB The polymer is that having ≥ 1 adamantyl-substituted monomer unit I (R1 = H, Me; R2, R3 = H, OH). The photoresist composition contains the polymer and a photosensitive acid-generating agent. The photoresist composition, showing good etching resistance, is suitable for photolithog. in semiconductor device fabrication.

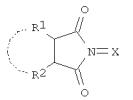
ACCESSION NUMBER: 2001347119 CAPLUS
 DOCUMENT NUMBER: 134346475
 TITLE: Adamantyl-containing polymer for photoresist and polymer composition for photoresist
 INVENTOR(S): Gokochi, Toru; Okino, Takeshi; Asakawa, Koji; Shinoda, Naomi; Funaki, Katsunori; Tsutsumi, Kiyoharu; Horai, Akira; Inoue, Keizo
 PATENT ASSIGNEE(S): Toshiba Corp., Japan; Daicel Chemical Industries, Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001131232	A	20010515	JP 1999-312329	19991102
TW 581939	B	20040401	TW 2000-39122996	20001101
PRIORITY APPLN. INFO.:			JP 1999-312329	A 19991102

L4 ANSWER 22 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 IT 39917-38-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (intermediate for monomer; adamantyl-containing polymer for etching-resistant photoresist for semiconductor device fabrication)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



L4 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 23 Jun 2000
 GI



I

AB Imide compound I (R1 and R2 are H, halogen alkyl, and etc., or are united to form a double bond or a ring, X is oxygen or hydroxyl) is a reaction catalyst for a stable radical-forming compound (including oxygen compds. having carbon-hydrogen bonds adjacent to the oxygen atom, carbonyl compds., and compds. having hydrocarbon groups bearing methyne carbon) with a radical-scavenging compound (including unsatd. compds., compds. having hydrocarbon groups bearing methyne carbon) in the presence of mol. oxygen.

Thus, Et acrylate 3 mmol and 2-propanol 3 mL were reacted in the presence of N-hydroxyphthalimide 0.1 mmol and cobalt (II) acetate 0.015 mmol cobalt

(III) acetylacetate 0.045 mmol to give Et 2,4-dihydroxy-4-methylmethanate 35%, α -hydroxy- γ , γ -dimethyl- β -butyrolactone 35% at the conversion of Et acrylate 81%.

ACCESSION NUMBER: 2000421066 CAPLUS
 DOCUMENT NUMBER: 133:60353
 TITLE: preparation of organic compounds with imide catalysts
 INVENTOR(S): Ishii, Yasutaka; Iwahama, Takahiro; Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 133 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000035835	A1	20000622	WO 1999-JP6891	19991209
W: JP, KR, US R: DE, FR, GB				
EP 1055654	A1	20001129	EP 1999-959710	19991209
EP 1055654	B1	20080220		
R: DE, FR, GB				
US 7183423	B1	20070227	US 2000-622001 JP 1998-353621	20000922 A 19981211
PRIORITY APPLN. INFO.:			JP 1998-353622	A 19981211
			JP 1999-65651	A 19990311
			JP 1999-136340	A 19990517

L4 ANSWER 23 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 WO 1999-JP6891 W 19991209

OTHER SOURCE(S): MARPAT 133:60353
 IT 39917-38-9P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (preparation of organic compds. with imide catalysts)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



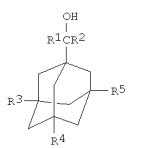
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

07/04/2008, 10716012IIa.trn

L4 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 03 Dec 1999
 AB The compns. comprise polymers having units derived from an acid-sensitive compound selected from (meth)acrylic acid esters bearing specific alicyclic groups, e.g., adamantanyl group. The compns. have high resistance to etchants, become soluble upon irradiation with light, and can form a finer pattern. Thus, adding a solution of 1.2 mol i-PrMgI in dry Et₂O to a solution of 1 mol adamantan-1-ylethan-1-one in dry THF at 10°, mixing for 6 h, and esterifying the resulting 1-(1-hydroxy-1,2-dimethylpropyl)adamantane with i-Pr acrylate in the presence of SmI₂ gave 1-(1-acryloyloxy-1,2-dimethylpropyl)adamantane (I). Polymerizing I 50 with Me methacrylate 10, Bu acrylate 20 and methacrylic acid 20% using Bz₂O₂ gave a copolymer with weight-average mol. weight approx. 5x10³, 100 parts of which was combined with 15 parts triphenylphosphonium hexafluoroantimonate and PhMe solvent to give a photoresist.
 ACCESSION NUMBER: 1999764004 CAPLUS
 DOCUMENT NUMBER: 13212928
 TITLE: Acid-sensitive compounds for use in photoresist resin compositions
 INVENTOR(S): Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 55 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961404	A1	19991202	WO 1999-JP2637	19990520
W: KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 2000136165	A	20000516	JP 1999-135623	19990517
JP 2003277446	A	20031002	JP 2003-30804	19990517
EP 1000924	A1	20000517	EP 1999-953334	19990520
R: DE, FR, GB				
EP 1445266	A2	20040811	EP 2004-8994	19990520
EP 1445266	A3	20040915		
EP 1445266	B1	20060503		
R: DE, FR, GB				
TW 476866	B	20020221	TW 1999-88108544	19990525
US 20030180662	A1	20030925	US 2003-386474	20030313
PRIORITY APPLN. INFO.:			JP 1998-143536	A 19980525
			JP 1998-244067	A 19980828
			JP 1999-135623	A3 19990517

L4 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 29 Oct 1999
 GI



AB Title compds I (R1 is hydrogen or a hydrocarbon group; R2 is a hydrocarbon group having, at the binding site to the adjacent carbon atom, a carbon atom bearing at least one hydrogen atom bonded thereto; and R3, R4 and R5 are each hydrogen, optionally protected hydroxyl or the like, with the provisos that when R1 is hydrogen or Me and R2 is Me, at least one of the carbon atoms constituting the adamantane skeleton has protected hydroxyl or the like in a state bonded thereto and that when one of R1 and R2 is

Me and the other is Et, the adamantane ring has at least one more substituent in addition to the HOCR1R2 group), useful as monomers, are prepared

Thus, Grignard reaction of 1-acetyladamantane with i-PrMgBr gave 46% α -isopropyl- α -methyl-1-adamantanemethanol.

ACCESSION NUMBER: 1999691054 CAPLUS
 DOCUMENT NUMBER: 131:299244
 TITLE: Preparation of adamantanemethanol derivatives
 INVENTOR(S): Nakano, Tatsuya; Shimojitosyo, Hiroshi
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 72 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

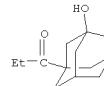
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9954271	A1	19991028	WO 1999-JP2110	19990421
W: JP, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 990632	A1	20000405	EP 1999-917071	19990421
R: DE, FR, GB				
US 6344590	B1	20020205	US 1999-468326	19991221
US 20020016516	A1	20020207		
PRIORITY APPLN. INFO.:			JP 1998-128296	A 19980421
			JP 1998-285632	A 19981007

L4 ANSWER 24 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ED Entered STN: 03 Dec 1999
 AB The compns. comprise polymers having units derived from an acid-sensitive compound selected from (meth)acrylic acid esters bearing specific alicyclic groups, e.g., adamantanyl group. The compns. have high resistance to etchants, become soluble upon irradiation with light, and can form a finer pattern. Thus, adding a solution of 1.2 mol i-PrMgI in dry Et₂O to a solution of 1 mol adamantan-1-ylethan-1-one in dry THF at 10°, mixing for 6 h, and esterifying the resulting 1-(1-hydroxy-1,2-dimethylpropyl)adamantane with i-Pr acrylate in the presence of SmI₂ gave 1-(1-acryloyloxy-1,2-dimethylpropyl)adamantane (I). Polymerizing I 50 with Me methacrylate 10, Bu acrylate 20 and methacrylic acid 20% using Bz₂O₂ gave a copolymer with weight-average mol. weight approx. 5x10³, 100 parts of which was combined with 15 parts triphenylphosphonium hexafluoroantimonate and PhMe solvent to give a photoresist.
 ACCESSION NUMBER: 1999764004 CAPLUS
 DOCUMENT NUMBER: 13212928
 TITLE: Acid-sensitive compounds for use in photoresist resin compositions
 INVENTOR(S): Nakano, Tatsuya
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 55 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

IT 39917-38-9P 251564-79-1P, 1-Hydroxy-3-(1-oxopropyl)adamantane
 RL: IMP (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; manufacture of acrylic polymers bearing acid-sensitive adamantyl groups for use in photoresists with good resistance to etchants)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



RN 251564-79-1 CAPLUS
 CN 1-Propanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 25 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ED Entered STN: 29 Oct 1999
 GI

OTHER SOURCE(S): CASREACT 131:299244; MARPAT 131:299244
 IT 39917-38-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of adamantanemethanol derivs.)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

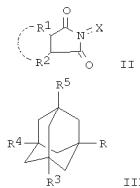
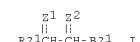
L4 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 08 Sep 1999
 AB By reacting 1-adamantanecarbonyl chloride with di-Me malonate in the presence of solid NaOH, di-Me (1-adamantanecarbonyl)malonate, an intermediate product in the synthesis of (1-adamantyl) Me ketone, was prepared. The use of NaOH instead of Mg in the synthesis of ketones from acyl chlorides and malonic esters is restricted by the hydrolytic instability of acyl chlorides. At the same time, with NaOH instead of Mg the synthesis is much facilitated and the yield of the target (1-adamantyl) Me ketone is improved. Resistance of an acid to hydrolysis can apparently be measured by its dissociation constant. Comparison of the dissociation consts. of 3-chloro- and 3-bromo-1-adamantanecarboxylic acids with that of 1-adamantanecarboxylic acid [Kd + 107; 1.55 (1-ACCOOH), 6.46 (3-Br-1-AdCOOH), 7.13 (3-Cl-1-AdCOOH)] allows the approach to be extended to 3-halo-1-adamantanecarboxylic acids. Aiming at developing methods for synthesis of Me 3-R-1-adamantyl ketone, haloadamantyl acyl bromide or chloride was reacted with di-Me malonate in the presence of NaOH and isolated di-Me (3-halo-1-adamantanecarbonyl)malonates. The composition and structure of the products were proved by 1H and IR spectroscopy and elemental anal.

ACCESSION NUMBER: 1999:564300 CAPLUS
 DOCUMENT NUMBER: 131:299239
 TITLE: Reaction of 3-halo-1-adamantanecarbonyl chlorides with dimethyl malonate
 AUTHOR(S): Makarov, N. V.; Moiseev, I. K.; Zemtsova, M. N.
 CORPORATE SOURCE: Samara State Technical University, Samara, Russia
 SOURCE: Russian Journal of General Chemistry (Translation of Zhurnal Osnovnoi Khimii) (1999), 69(4), 675-676
 CODEN: RJGCER; ISSN: 1070-3632
 PUBLISHER: MAIK Nauka/Interperiodica Publishing
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 131:299239
 IT 39917-38-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (reaction of haloadamantanecarbonyl chlorides with di-Me malonate in preparation of adamantyl Me ketone)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 24 Aug 1999
 GI



AB Acylating agents comprising: (A) a 1,2-dicarbonyl compound or its hydroxy-reduction derivative (I); R1, R2 = Cl-4 alkyl, cycloalkyl, aryl, or R1 and R2 are bonded to each other to form together with the adjacent two carbon atoms, a ring; z1, z2 = O, OH; (B) an enzyme; and (C) at least one compound selected from among (c1) metal compds. and (c2) imide compds. such as N-hydroxypthalimide (II; R1 = H, halo, alkyl, aryl, cycloalkyl, OH, alkoxy, CO2H, alkoxy carbonyl, acyl; or R1 and R2 are bonded to each other to form a double bond or an aromatic or nonarom. ring optionally bonded to one or two imide groups; X = O, OH). As the 1,2-dicarbonyl compound or its hydroxy-reduction derivative (A), use may be made of biacetyl, 2,3-butanediol, etc. As the metal compds. (c1), use may be made of a cobalt compound such as cobalt acetate. An acyl group can be efficiently introduced into a methine carbon atom by treating a compound carrying a methine carbon atom such as an adamantane derivative [III; R = acyl, R5, R4, R3 = H, halo, alkyl, (un)protected OH, CH2OH, NH2, or CO2H, NO2, acyl; the carbon atoms constituting the adamantane skeleton other than the bridge head carbon optionally possess substituents] by the above acylating agent. Thus, a mixture of adamantane 3, biacetyl 18, cobalt acetate 0.015 mmol, 3 mL AcOH was stirred under oxygen atmospheric at 60° for 4 h to give 1-acetyl adamantane 50, 1,3-diacyl adamantane 23, 1-acetyl-3-adamantanol 4, 1-adamantanol 3, and 2-adamantanone 38 with 85% conversion of adamantane.

RN 216582-03-5 CAPLUS
 CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

L4 ANSWER 26 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ACCESSION NUMBER: 1999:529116 CAPLUS
 DOCUMENT NUMBER: 131:157613
 TITLE: Acylating agents, acylation of nonactivated methine carbon with the use of the same and adamantane derivatives

INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya; Hirai, Naruhisa
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan
 SOURCE: PCT Int. Appl., 82 pp.
 CODEN: PIKXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941219	A1	19990819	WO 1999-JP567	19990210
W: US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11335304	A	19991207	JP 1998-353620	19981211
EP 990634	A1	20000405	EP 1999-302870	19990210
R: DE, FR, GB				
US 6429314	B1	20020806	US 1999-402898	19991013
PRIORITY APPLN. INFO.:			JP 1998-48880	A 19980213
			JP 1998-100458	A 19980327
			JP 1998-353620	A 19981211
			WO 1999-JP567	W 19990210

OTHER SOURCE(S): CASREACT 131:157613; MARPAT 131:157613
 IT 39917-38-9P 216582-03-5P, 1-Acetyl-3,5-adamantanediol
 237749-98-3P 237749-99-4P 237750-01-5P
 237750-23-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (acylating agents containing dicarbonyl compound, imide, and metal compound for acylation of nonactivated methine carbon such as adamantane)

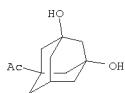
RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



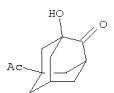
RN 216582-03-5 CAPLUS
 CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

(Continued)



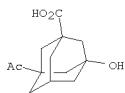
RN 237749-98-3 CAPLUS
 CN Tricyclo[3.3.1.13,7]decanone, 5-acetyl-1-hydroxy- (9CI) (CA INDEX NAME)



RN 237749-99-4 CAPLUS
 CN Tricyclo[3.3.1.13,7]decanone, 1-acetyl-5-hydroxy- (9CI) (CA INDEX NAME)

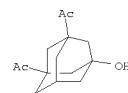


RN 237750-01-5 CAPLUS
 CN Tricyclo[3.3.1.13,7]decanone-1-carboxylic acid, 3-acetyl-5-hydroxy- (CA INDEX NAME)



RN 237750-23-1 CAPLUS
 CN Ethanone, 1,1'-(5-hydroxytricyclo[3.3.1.13,7]decan-1,3-diyl)bis- (9CI) (CA INDEX NAME)

L4 ANSWER 27 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 28 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 21 Jul 1999

AB Exposure of a mixture of adamantanone and biacetyl under O₂ in the presence of Co(OAc)₂ (0.1 mol%) in AcOEt led to 1-acetyladamantanone (47%) and 1,3-diacetyladamantanone (20%) as major products along with small amounts of 1-adamantanol (4%) and 2-adamantanone (3%).

ACCESSION NUMBER: 1999447140 CAPLUS

DOCUMENT NUMBER: 131:271649

TITLE: Catalytic radical acetylation of adamantanes with biacetyl by a cobalt salt under atmospheric dioxygen

AUTHOR(S): Kishi, Arata; Saito, Susumu; Sakaguchi, Satoshi; Ishii, Yasutaka

CORPORATE SOURCE: Research Center, Faculty of Engineering and High Technology, Department of Applied Chemistry, Kansai University, Suita, Osaka, Japan

SOURCE: Chemical Communications (Cambridge) (1999), (15), 1421-1422

CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantanone
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]decan-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 16 Dec 1998

AB High yields of polymerizable adamantane derivs. each having at least one polymerizable unsatd. group are produced by the esterification or amidation of a (1-, 3-, 5- or/and 7-substituted; preferably >2 of substituents are HO, COOH or amino groups) adamantane compound with a polymerizable unsatd. group-containing compound (e.g. an alc., a carboxylic acid

or an amine) in the presence of a catalyst comprising a Group-III element compound, e.g., Sm compound. Thus, heating adamantane 10 with N-hydroxypyridinol-3, V(acac)₃ 0.03 and Mn(acac)₃ 0.02 mmol in 25 mL AcOEt at 75° for 6 h gave a mixed product containing 1-adamantanol 37, 1,3-adamantanediol (1) 35, 1,3,5-adamantanetriol 5 and 1,3,5,7-adamantanetetraol 4%. Mixing 1 0.168 with SmI₀ 0.040 and vinyl diacrylate 0.216 g in dioxane at 60° for 6 h gave an adamantly diacrylate at 97% yield.

ACCESSION NUMBER: 1998789116 CAPLUS

DOCUMENT NUMBER: 130:38780

TITLE: Photochemically or thermally polymerizable adamantane derivatives and process for producing the same

INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya; Hirai, Naruhisa

PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852902	A1	19981126	WO 1998-JP2085	19980512
W: KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 1103552	A	19990209	JP 1998-106364	19980416
EP 915077	A1	19990512	EP 1998-919559	19980512
EP 915077	B1	20041117		
R: DE, FR, GB				
TW 498080	B	20020811	TW 1998-87107704	19980519
US 6235851	B1	20010522	US 1999-214724	19990111
KR 2000029498	A	20000525	KR 1999-700524	19990122
PRIORITY APPLN. INFO.:			JP 1997-133657	A 19970523
			WO 1998-JP2085	W 19980512

OTHER SOURCE(S): MARPAT 130:38780

IT 39917-38-9P, 1-Acetyl-3-hydroxyadamantanone 216582-03-5P,

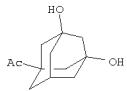
1-Acetyl-3,5-adamantanediol

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; manufacture and reaction in manufacture of photochem. or thermally polymerizable adamantane derivs.)

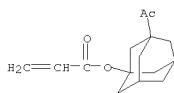
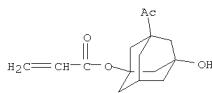
RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]decan-1-yl)- (CA INDEX NAME)

L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 216582-03-5 CAPLUS
CN Ethanone, 1-(3,5-dihydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

IT 216582-05-7P, 1-Acetyl-7-acryloyloxyadamantane
216582-06-8P, 1-Acetyl-3-hydroxy-5-acryloyloxyadamantane
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(monomers; manufacture of photochem. or thermally polymerizable adamantanone derivs.)
RN 216582-05-7 CAPLUS
CN 2-Propenoic acid, 3-acetyltricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

RN 216582-06-8 CAPLUS
CN 2-Propenoic acid, 3-acetyl-5-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester (CA INDEX NAME)

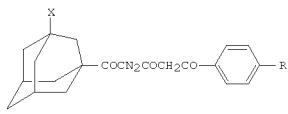
L4 ANSWER 30 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
ED Entered STN: 01 Aug 1997
AB The crystal structures of the adamantanone derivs., 1-acetyl-3-adamantanone, C12H18O2, (4), and 3-hydroxyadamantanone-1-carboxylic acid, C11H16O3, (5), were determined by x-ray diffraction. Both structures show extensive intermol. H bonding involving the hydroxyl and acetyl groups in compound (4), and the hydroxyl and carboxyl groups in compound (5). Crystallog. data and atomic coordinates are given.
ACCESSION NUMBER: 1997:480226 CAPLUS
DOCUMENT NUMBER: 127:102048
TITLE: 1-Acetyl-3-hydroxyadamantane and 1-Carboxy-3-hydroxyadamantane
AUTHOR(S): Rath, Pragyan P.; Gu, Hong; Murray, Robert W.
CORPORATE SOURCE: Dep. Chemistry, Univ. Missouri-St. Louis, St. Louis, MO, 63121, USA
SOURCE: Acta Crystallographica, Section C: Crystal Structure Communications (1997), C53(7), 944-946
CODEN: ACSCEB; ISSN: 0108-2701
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 39917-38-9, 1-Acetyl-3-hydroxyadamantane
RL: PRP (Properties)
(crystal structure of)
RN 39917-38-9 CAPLUS
CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

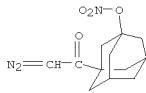
L4 ANSWER 29 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 07 Aug 1993
 GI

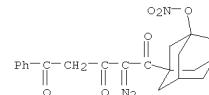


AB 2-Diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones I (R = H, Me, MeO, Br, Cl, X = H, Cl, Br, NO₂, ONO₂) and also the products of their thermal cyclization: 3-(1-adamantylcarbonyl)-5-acylpyrazoline-4-ones, 3-(1-adamantylcarbonyl)-5-aryl-2,3-dihydrofuran-2-ones and 2-(1-adamantylcarbonyl)-5-aryl-2,3-dihydrofuran-3-ones were prepared by reaction of 1-adamantylcarbonyldiazomethanes with 5-aryl-2,3-dihydrofuran-2,3-diones. The formation of furanones results from thermolysis of the diazopentanetriones during their preparation

ACCESSION NUMBER: 1993:449009 CAPLUS
 DOCUMENT NUMBER: 119:49009
 TITLE: Chemistry of oxanyl derivatives of methyl ketones. Synthesis and thermolysis of 2-diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones
 AUTHOR(S): Andreichikov, Yu. S.; Kolobova, M. P.
 CORPORATE SOURCE: Perm. Gos. Farm. Inst., Perm, Russia
 SOURCE: Zhurnal Organicheskoi Khimii (1992), 28(8), 1692-9
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 119:49009
 IT 73599-86-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with arylfuraniones)
 RN 73599-86-7 CAPLUS
 CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA INDEX NAME)

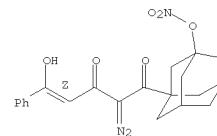


L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ED 78227-77-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and chelation by copper halides)
 RN 78227-77-7 CAPLUS
 CN 1,3,5-Pantanetrione,
 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-
 5-phenyl- (CA INDEX NAME)



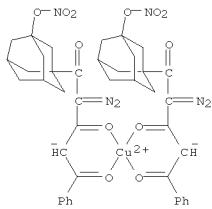
IT 148146-34-3P 148570-49-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 148146-34-3 CAPLUS
 CN 4-Penteno-1,3-dione,
 2-diazo-5-hydroxy-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-5-phenyl-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

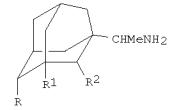


RN 148570-49-4 CAPLUS
 CN Copper,
 bis[2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-5-phenyl-
 1,3,5-pantanetrionato-O3,O5]- (9CI) (CA INDEX NAME)

L4 ANSWER 32 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L4 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 03 Aug 1990
 GI



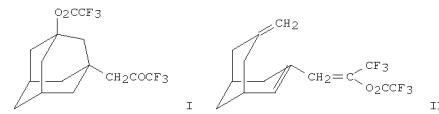
AB The hydroxy metabolites of rimantadine I (R = OH, R₁ = R₂ = H; R = R₁ = H, R₂ = OH; R = R₂ = H, R₁ = OH) were synthesized and compared to amantadine and rimantadine for their ability to inhibit the replication of influenza viruses in vitro. All 3 metabolites were inhibitory to wild-type influenza A viruses (H3N₂ and H1N₁). In particular, 2-hydroxymantadine I (R = R₁ = H, R₂ = OH) showed similar activity to amantadine, but the 3- and 4-hydroxy metabolites, both of which are found in rimantadine-treated patients, showed only modest inhibitory activity. A

rimantadine-resistant isolate of influenza A virus exhibited cross-resistance to amantadine and to each of the metabolites I. None of the compds. was effective against influenza B virus.

ACCESSION NUMBER: 1990:440007 CAPLUS
 DOCUMENT NUMBER: 113:40007
 TITLE: Synthesis and antiviral activity of metabolites of rimantadine
 AUTHOR(S): Manchand, Percy S.; Cerruti, Richard L.; Martin, Joseph A.; Hill, Christopher H.; Merritt, John H.; Keech, Elizabeth; Belzhe, Robert B.; Connell, Edward V.; Sim, Iain S.
 CORPORATE SOURCE: Dep. Chem. Res., Hoffmann-La Roche Inc., Nutley, NJ, 07110, USA
 SOURCE: Journal of Medicinal Chemistry (1990), 33(7), 1992-5
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 113:40007
 IT 39917-38-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and oxidation of)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

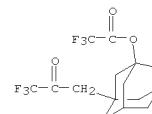
L4 ANSWER 33 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

(Continued)

L4 ANSWER 34 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
ED Entered STN: 06 Jul 1990
GIAB The title reaction in dry CH₂Cl₂ containing pyridine at 20° gave 15% adamantane I and 45% bicyclonene II.ACCESSION NUMBER: 1990:405758 CAPLUS
DOCUMENT NUMBER: 113:5758
TITLE: Reaction of 3,7-dimethylenecyclo[3.3.1]nonane with trifluoroacetic anhydride
AUTHOR(S): Khotkevich, A. B.; Soloshonok, V. A.; Kukhar, V. P.
CORPORATE SOURCE: Inst. Biorg. Khim. Kiev, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1989), 25(10), 2240-1
CODEN: ZORKAE; ISSN: 0514-7492DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 113:5758
IT 127510-27-4PRL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in reaction of dimethylenecyclononane with trifluoroacetic anhydride)

RN 127510-27-4 CAPLUS

CN Acetic acid, trifluoro-, 3-(3,3,3-trifluoro-2-oxopropyl)tricyclo[3.3.1.13,7]dec-1-yl ester (9CI) (CA INDEX NAME)



L4 ANSWER 35 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 20 Aug 1989

AB 14CH₃SO₂Ph (I) was prepared from Ba¹⁴CO₃ in four steps in 70% overall yield.The dianion of I was treated with a variety of esters RCO₂Me to produce keto sulfones RCO₁₄CH₂SO₂Ph, which were subsequently reduced with Al/Hgor Na/Hg to provide labeled Me ketones RCO₁₄CH₃. These ketones may be transformed into more complex structures in which the labeled carbon is secured within the carbon skeleton. The dianion of I was also condensed with di-Et carbonate to yield labeled Et phenylsulfonylacetate. After saponification and reduction of the carboxylate salt with Na/liqNH₃,sodium [2-¹⁴C]acetate was obtained, thus providing a convenient synthesis of [2-¹⁴C]acetic acid.

ACCESSION NUMBER: 1989:456589 CAPLUS

DOCUMENT NUMBER: 111:56589

TITLE: [14C]methyl phenyl sulfone: a novel reagent for general and facile carbon-14 labeling [4C]methyl phenyl sulfone: a novel reagent for general and facile carbon-14 labeling

AUTHOR(S): Choudhury, Satisch C.; Serico, Lucia; Cupano, Joseph Chem. Res. Dep., Hoffmann-La Roche, Inc., Nutley, NJ, 07110, USA

SOURCE: Journal of Organic Chemistry (1989), 54(15), 3755-7
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

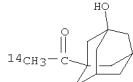
OTHER SOURCE(S): CASREACT 111:56589

IT 121706-33-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidation-hydrogenation of)

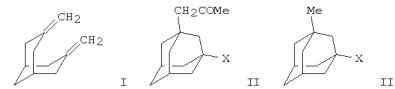
RN 121706-33-0 CAPLUS

CN Ethanone-2-¹⁴C, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (9CI) (CA INDEX NAME)

L4 ANSWER 36 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 04 Mar 1989

GI

AB Conjugate acylation of the title compound I by Ac₂O, MeCN, and ClCH₂CN in CH₂Cl₂ containing AcBF₄ gave mixts. containing acetyl adamantanes II (X = AcO, AcNH, ClCH₂CONH) and acyl adamantanes III.

ACCESSION NUMBER: 1989:74894 CAPLUS

DOCUMENT NUMBER: 110:74894

TITLE: Conjugate acylation of 3,7-dimethylenecyclo[3.3.1]nonane

AUTHOR(S): Gubernatorov, V. K.; Sokolenko, V. A.; Gridnev, I. D.; Balenkova, E. S.

CORPORATE SOURCE: Inst. Khim. Tekhnol., Krasnoyarsk, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1988), 24(4), 892-4

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

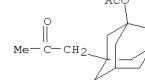
OTHER SOURCE(S): CASREACT 110:74894

IT 118647-95-3P

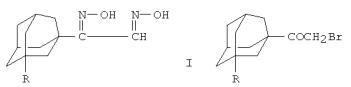
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 118647-95-3 CAPLUS

CN 2-Propanone, 1-[3-(acetoxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA INDEX NAME)



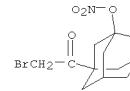
L4 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 31 Oct 1987
 GI



AB Title compds. I (R = H, Me, Et, Cl, 4-MeC6H4) were prepared by treatment of bromomethyl ketones II with NH2OH in EtOH. II (R = ONO2) underwent hydrolysis to give I (R = OH). All six oximes were dibenzoylated with BzCl-C5H5N in C6H6.

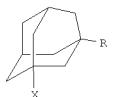
ACCESSION NUMBER: 1987:553970 CAPLUS
 DOCUMENT NUMBER: 107:153970
 ORIGINAL REFERENCE NO.: 107:24765a, 24768a
 TITLE: Synthesis and properties of dioximes of the adamantane series
 AUTHOR(S): Moiseev, I. K.; Kalinina, M. I.; Zemtsova, M. N.; Trakhtenberg, P. L.
 CORPORATE SOURCE: Kuibyshev. Politekh. Inst., Kuibyshev, USSR
 SOURCE: Zhurnal Organicheskoi Khimii (1986), 22(11), 2292-6
 CODEN: ZORKAE; ISSN: 0514-7492
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 107:153970
 IT 73599-86-7P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and conversion into bromide)
 RN 73599-86-7 CAPLUS
 CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA INDEX NAME)

L4 ANSWER 37 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA INDEX NAME)



IT 69752-09-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and oximation of)
 RN 69752-09-6 CAPLUS

L4 ANSWER 38 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 29 Sep 1984
 GI

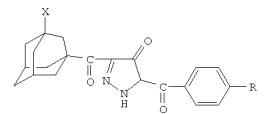


AB Reducing 3-chloro-1-cyano adamantane (I; R = cyano, X = Cl) with LiAlH4 in Et2O gave 70% I (R = CH2NH2-HCl, X = Cl) (II), which was hydrolyzed with 10% aqueous HCl to give 78% I (R = CH2NH2, X = OH) (III) after neutralization. Treating I (R = CO2H, X Br) with SOCl2 and then EtCOMgCH(COEt)2 then refluxing C6H6 gave, after acidic hydrolysis, 31% I (R = COMe, X = OH), which gave 86% I (R = CHMe:ONO, X = OH) with HONH2 and then 70% I (R = CHMeNH2, X = OH) (IV) on reduction with Raney Ni.

Treating III, IV and I (R = NH2, X = OH) with 63% aqueous HBr gave 50-82% I (R = ZNH2-HBr, X = Br; Z = CH2, CHMe, bond, resp.), and IV reacted with concentrated HCl to give 60% I (R = CHMeNH2-HCl, X = Cl). II had the greatest virucidal activity of the compds. prepared.

ACCESSION NUMBER: 1984:510401 CAPLUS
 DOCUMENT NUMBER: 101:110401
 ORIGINAL REFERENCE NO.: 101:16845a, 16848a
 TITLE: Synthesis and antiviral activity of some 3-halo derivatives of 1-amino adamantane
 AUTHOR(S): Kozhushko, G. I.; Mizhdokh, O.; Votyakov, V. I.; Rusyayev, V. A.; Danilenko, V. F.; Stepanova, G. Y.; Danilenko, G. I.
 CORPORATE SOURCE: Inst. Org. Chem., Kiev, USSR
 SOURCE: Farmatsvetvitchii Zhurnal (Kiev) (1984), (1), 37-40
 DOCUMENT TYPE: Journal
 LANGUAGE: Ukrainian
 OTHER SOURCE(S): CASREACT 101:110401
 IT 39917-38-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oximation of)
 RN 39917-38-9 CAPLUS
 CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl)- (CA INDEX NAME)

L4 ANSWER 39 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 12 May 1984
 GI

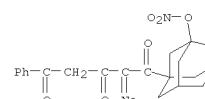


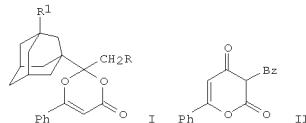
AB Title compds. I (X = H, R = Cl; X = ONO2, R = H) were prepared by cyclizing the corresponding 2-diazo-1-adamantyl-5-aryl-1,3,5-pentanetrione in the presence of 1 equivalent NiCl2 in 1:1 CHCl3-alc. solvent at 20-30° for 20-30 h.

ACCESSION NUMBER: 1983:505243 CAPLUS
 DOCUMENT NUMBER: 99:105243
 ORIGINAL REFERENCE NO.: 99:16205a, 16208a
 TITLE: 3-(1-Adamantoyl)-5-arylpolyazolin-4-ones
 INVENTOR(S): Andreichikov, Yu. S.; Sivkova, M. P.
 PATENT ASSIGNEE(S): Perm Pharmaceutical Institute, USSR
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1983, (10), 104-5.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1004373	A1	19830315	SU 1981-337499	19811228
PRIORITY APPLN. INFO.:			SU 1981-337499	19811228

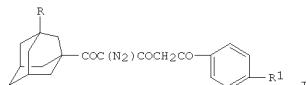
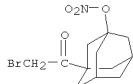
 OTHER SOURCE(S): CASREACT 99:105243
 IT 78227-77-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclization of, polyazolinone by)
 RN 78227-77-7 CAPLUS
 CN 1,3,5-Pentanetrione,
 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-
 5-phenyl- (CA INDEX NAME)





AB Adamantane derivs. I [R = H, Cl, Br, ONO_2 , $\text{OSO}_2\text{OR1}$ (R1 = adamantylidioxinmethoxy derivative), R1 = H, Br, NC2, Ph, ONO_2] were prepared in 29-78% yields by treatment of the corresponding adamantyl Me ketone with 5-phenyl-2,3-dihydro-2,3-furanone under thermal decarbonylation conditions. Addnl. obtained was pyrandione II via dimerization of the benzoylketene.

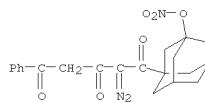
ACCESSION NUMBER: 1983:72015 CAPLUS
DOCUMENT NUMBER: 98:72015
ORIGINAL REFERENCE NO.: 98:11027a,11030a
TITLE: Chemistry of oxalyl derivatives of methyl ketones.
28.
REACTION: Reaction of carbonyl compounds of adamantane with 5-phenyl-2,3-dihydrofuran-2,3-dione
AUTHOR(S): Andreichikov, Yu. S.; Sivkova, M. P.; Shapet'ko, N.
N.
CORPORATE SOURCE: Perm. Gos. Farm. Inst., Perm, 614600, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1982), (10), 1312-15
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 98:72015
IT 69752-09-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reaction of, with dihydrophenylfuranone)
RN 69752-09-6 CAPLUS
CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA INDEX NAME)



AB Title compds. I (R = H, R1 = H, Me, MeO; R = NO_2 , nitroato, R1 = H) were prepared by refluxing (1-adamantylcarbonyl)diazomethane with 5-aryl-2,3-furanones in CCl_4 for 1.5-2 h.

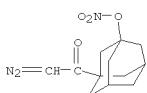
ACCESSION NUMBER: 1981:442493 CAPLUS
DOCUMENT NUMBER: 95:42493
ORIGINAL REFERENCE NO.: 95:7269a,7272a
TITLE: 2-Diazo-1-adamantyl-5-aryl-1,3,5-pentanetriones
INVENTOR(S): Andreichikov, Yu. S.; Sivkova, M. P.
PATENT ASSIGNEE(S): Perm Pharmaceutical Institute, USSR
U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztzy, Tovarnye Znaki 1981, (9), 89.
SOURCE: CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 810678	A1	19810307	SU 1979-2758178	19790404
PRIORITY APPLN. INFO.:			SU 1979-2758178	A 19790404
OTHER SOURCE(S):		CASREACT 95:42493		
IT 78227-77-7P		RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)		
RN 78227-77-7 CAPLUS		CN 1,3,5-Pentanetrione,		
CN 1,3,5-Pentanetrione,		2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-		
2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]-		5-phenyl- (CA INDEX NAME)		

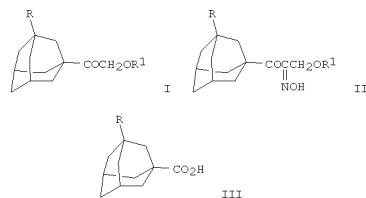


L4 ANSWER 42 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 12 May 1984
 AB The polarogr. half-wave potentials and limiting currents of 9 RCOCHN₂ (R = adamantyl, 3-substituted adamantyl) were determined as a function of pH.

In 50% aqueous alc. 2 cathodic waves were obtained; the 1st had diffusion and the 2nd kinetic character. The reduction produced an oxo imine in the 1st step and a Me ketone in the 2nd. The substituents in position 3 had little effect on the ease of electroreducn of the diazo group.
 ACCESSION NUMBER: 1980:567279 CAPLUS
 DOCUMENT NUMBER: 93:167279
 ORIGINAL REFERENCE NO.: 93:26627a,26630a
 TITLE: Polarographic reduction of adamantoyletdiazomethane derivatives
 AUTHOR(S): Gomza, L. D.; Sivkova, M. P.; Veikman, G. A.; Legotkina, G. I.; Andreichikov, Yu. S.
 CORPORATE SOURCE: USSR
 SOURCE: Zhurnal Obschei Khimii (1980), 50(5), 1139-43
 CODEN: ZOKHA4; ISSN: 0044-460X
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 IT 73599-86-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polarogr. reduction of)
 RN 73599-86-7 CAPLUS
 CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA
 INDEX NAME)



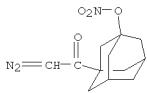
L4 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 12 May 1984
 GI



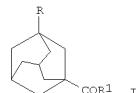
AB Adamantane ketones I (R = H, Cl, Br, iodo, Ph, R' = Cl, Br, Rl = Et) and adamantane oximes II (R = H, Cl, Br, iodo) were prepared from the corresponding III. III were converted into the acid chlorides, which were

treated with CH₂N₂ or MeCH₂N₂ to give the diazo derivs., which underwent decomposed in acidic H₂O or EtOH to give I; some I were converted into oximes II. I and II were tested as antimicrobials and antispasmodics.
 ACCESSION NUMBER: 1980:197989 CAPLUS
 DOCUMENT NUMBER: 92:197989
 ORIGINAL REFERENCE NO.: 92:32063a,32066a
 TITLE: Synthesis and biological activity of adamantane derivatives
 AUTHOR(S): Fridman, A. L.; Sivkova, M. P.; Zalesov, V. S.; Dolibitkin, K. V.; Moiseev, I. K.; Doroshenko, R. I.; Manzhelevskaya, E. V.
 CORPORATE SOURCE: Perm. Farm. Inst., Perm, USSR
 SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1979), 13(12), 24-31
 CODEN: KHFZAN; ISSN: 0023-1134
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 92:197989
 IT 73599-86-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and solvolytic decomposition of)
 RN 73599-86-7 CAPLUS
 CN Ethanone, 2-diazo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA
 INDEX NAME)

L4 ANSWER 43 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

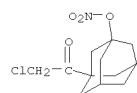


L4 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 12 May 1984
 GI



AB 35Cl and 79Br NQR data were obtained for I [R = H, Cl, Br, iodo, F, Ph, NO₂, CN₂, p-tolyl, 3,4-xylyl, (O₂N)₂C; R' = Cl, CH₂Cl, CH₂Br] and NMR data were also obtained for the exocyclic CH₂ group of I (same R; Rl = CH₂Cl, CH₂Br). Correlation of the NQR frequencies with σ^* const. yielded straight lines with pos. slopes for electron-accepting R substituents and sep. lines with neg. slopes for R = H, Ph, p-tolyl and 3,4-xylyl. The concentration and temperature effects on the NMR and NQR data indicate intermol. association, especially for I containing electron-accepting R substituents.

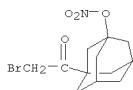
ACCESSION NUMBER: 1979:151397 CAPLUS
 DOCUMENT NUMBER: 90:151397
 ORIGINAL REFERENCE NO.: 90:24053a,24056a
 TITLE: Study of adamantane carboxylic chlorides and α -halomethyl adamantyl ketones
 AUTHOR(S): Petukhov, S. A.; Vakhrin, M. I.; Sivkova, M. P.
 CORPORATE SOURCE: Perm. Gos. Univ., Perm, USSR
 SOURCE: Zhurnal Fizicheskoi Khimii (1979), 53(1), 122-5
 CODEN: ZFKHA9; ISSN: 0044-4537
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 IT 69752-02-9 69752-09-6
 RL: PRP (Properties)
 (NQR of)
 RN 69752-02-9 CAPLUS
 CN Ethanone, 2-chloro-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA
 INDEX NAME)



RN 69752-09-6 CAPLUS
 CN Ethanone, 2-bromo-1-[3-(nitrooxy)tricyclo[3.3.1.13,7]dec-1-yl]- (CA
 INDEX NAME)

L4 ANSWER 44 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

(Continued)



L4 ANSWER 45 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 12 May 1984

AB The mechanism of photoacetylation of adamantanes with biacetyl was discussed. The reaction proceeded via triplet biacetyl and had a large ρ^* value (-0.71). Thermolysis of tert-Bu 1-adamantaneperoxycarboxylate in biacetyl gave 1-acetyladamantane while tert-Bu 2-adamantaneperoxycarboxylate gave both 1- and 2-acetyladamantanes. The exclusive bridgehead substitution in the present photoacetylation was not determined by the radical transfer step, but mostly by the regiospecific abstraction of the bridge hydrogen by triplet biacetyl, probably owing to the large nonbonded repulsion in a transition state of secondary H abstraction.

ACCESSION NUMBER: 1978:423399 CAPLUS

DOCUMENT NUMBER: 89:23399

ORIGINAL REFERENCE NO.: 89:3637a, 3640a

TITLE: Mechanism of photoacetylation of substituted adamantanes

AUTHOR(S): Tabushi, Iwao; Kojo, Shosuke; Fukunishi, Koushi

CORPORATE SOURCE: Dep. Synth. Chem., Kyoto Univ., Kyoto, Japan

SOURCE: Journal of Organic Chemistry (1978), 43(12), 2370-4

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 42825-02-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 42825-02-5 CAPLUS

CN Ethanone, 1-(3-methoxytricyclo[3.3.1.13,7]dec-1-yl) - (CA INDEX NAME)



L4 ANSWER 46 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Irradiation of adamantane and its derivs. (I; R1 = R2 = H, R = H, Me, MeO, MeCO2, Br, and R = R1 = Me, R2 = H) and Me(CO)2Me gave the acetyl derivs.

(I, R2 = Ac) by exclusive bridgehead substitution. The reaction constant obtained from the relative reactivities of the 1-substituted adamantanes was more neg. than for the corresponding reactions with Br•, Cl3C•, and benzophenone.

ACCESSION NUMBER: 1973:515201 CAPLUS

DOCUMENT NUMBER: 79:115201

ORIGINAL REFERENCE NO.: 79:18707a, 18710a

TITLE: Photoacetylation of substituted adamantanes. Exclusive bridgehead substitution and a large ρ^* value

AUTHOR(S): Tabushi, Iwao; Kojo, Shosuke; Yoshida, Zenichi

CORPORATE SOURCE: Dep. Pharm. Sci., Kyushu Univ., Fukuoka, Japan

SOURCE: Tetrahedron Letters (1973), (26), 2329-32

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 42825-02-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 42825-02-5 CAPLUS

CN Ethanone, 1-(3-methoxytricyclo[3.3.1.13,7]dec-1-yl) - (CA INDEX NAME)



L4 ANSWER 47 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Stepwise treatment of 3-bromo-1-adamantanecarboxylic acid (I; R = CO2H, X = Br) with SOCl_2 , $(\text{EtO}_2\text{C})_2\text{CHMgOEt}$, and H_2O afforded 62% I (R = COMe, X = OH), which was converted to 92% I (R = CHBrMe , X = Br) (II) by LiAlH_4 reduction, followed by refluxing with 63% aqueous HBr; II gave the title compound(III) in 76% yield with Zn dust in refluxing DMF. III formed complexes with AgNO_3 and CuCl , and reacted with aqueous H_2SO_4 , HBr in CCl_4 , MeCN - H_2SO_4 Na in MeOH , and I2 to give adamantanes IV (R = Me, X = OH, Br, NHAc, H; R = CH_2I , X = I, resp.); bromination of III in CCl_4 gave 78:22

1,2-dimethyl- and 1-ethyladamantane in 49% total yield after hydrogenation over Raney Ni of the resultant tribromide in the presence of NaOH.

ACCESSION NUMBER: 1973:83902 CAPLUS

DOCUMENT NUMBER: 78:183902

ORIGINAL REFERENCE NO.: 78:13385a, 13388a

TITLE: Synthesis and chemical reactions of 3-methylene-7-ethylidenebicyclo[3.3.1]nonane

AUTHOR(S): Yurchenko, A. G.; Murzinova, Z. N.; Stepanov, F. N.

CORPORATE SOURCE: Kiev. Politekh. Inst., Kiev, USSR

SOURCE: Zhurnal Organicheskoi Khimii (1972), 8(11), 2332-8

CODEN: ZORKAE; ISSN: 0514-7492

DOCUMENT TYPE: Journal

LANGUAGE: Russian

IT 39917-38-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 39917-38-9 CAPLUS

CN Ethanone, 1-(3-hydroxytricyclo[3.3.1.13,7]dec-1-yl) - (CA INDEX NAME)



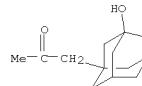
L4 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 12 May 1984
 AB 1-[2-(Methylamino)-propyl]-3,5,7-trimethyladamantane-HCl (I) and similar compds. were prepared by different methods and their pharmacol. activity tested. Thus, 1-bromo-3,5,7-trimethyladamantane was refluxed in aqueous NaHCO₃-isopropanol to give 3,5,7-trimethyl-1-adamantanol (II). To II was added BF₃ in H₂SO₄, followed by CH₂:Cl₂, to give 3,5,7-trimethyl-1-adamantanecetic acid (III). III heated with SOC₁₂ gave the corresponding acid chloride which was added to di-Et malonate Mg salt in Et₂O to give, on saponification 1-(3,5,7-trimethyl-1-adamantyl)-2-propanone (IV). IV was dissolved in MeNH₂-EtOH and the product hydrogenated over PtO₂ to give, after acidification, I. Fifty-three examples are given.

ACCESSION NUMBER: 1971144110 CAPLUS
 DOCUMENT NUMBER: 74144110
 ORIGINAL REFERENCE NO.: 7422799a, 22802a
 TITLE: Adamantanealkylamines antidepressants
 INVENTOR(S): Cashin, Colin H.; Chakrabarti, Jibon K.; Szinai, Stephen S.,
 PATENT ASSIGNEE(S): Lilly Industries Ltd.
 SOURCE: Ger. Offen., 84 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1943404	A	19701217	DE 1969-1943404	19690826
GB 1274652	A	19720517	GB 1969-40968	19690827
IL 32892	A	19750425	IL 1969-32892	19690824
BE 73 7975	A	19700226	BE 1969-73 7975	19690826
NL 6913046	A	19700303	NL 1969-13046	19690826
AT 307380	B	19730525	AT 1969-8172	19690826
CH 538442	A	19730815	CH 1969-13006	19690826
SE 364037	B	19740211	SE 1969-11809	19690826
CH 551365	A	19740715	CH 1971-14359	19690826
CH 553149	A	19740830	CH 1972-1433	19690826
DK 131721	B	19750825	DK 1969-4578	19690826
FR 2016468	A5	19700508	FR 1969-29356	19690827
FR 2016468	B1	19730608		
JP 49039256	B	19741024	JP 1972-64562	19720629
JP 49039257	B	19741024	JP 1972-64563	19720629
JP 50010856	B	19750424	JP 1972-64561	19720629
US 3929888	A	19751230	US 1973-417174	19731119
US 4027035	A	19770531	US 1975-608613	19750828
PRIORITY APPLN. INFO.:			GB 1968-40968	A 19680827
			US 1969-852090	A2 19690821
			US 1973-417174	A3 19731119

IT 31898-12-1P

L4 ANSWER 48 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prep. of)
 RN 31898-12-1 CAPLUS
 CN 2-Propanone, 1-(3-hydroxy-1-adamantyl)- (8CI) (CA INDEX NAME)



L4 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN
 ED Entered STN: 22 Apr 2001
 AB A mixture of 37.5 g. 2-methoxybutadiene, 36.5 g. 3-methyl-3-buten-2-one, and 0.6 g. hydroquinone is heated at 150-80° for 16 hrs. to give 40 g. 1-methoxy-4-acetyl-4-methyl-1-cyclohexene (I). I is stirred with 10 cc. 2% H₂SO₄ for 10 min., saturated with NH₄Cl, the upper layer removed, and the lower layer extracted with Et₂O to give 32 g. 4-acetyl-4-methyl-1-cyclohexanone (II). II (5 g.) is refluxed in 100 cc. aqueous solution of 5 g. KOH for 6 hrs., cooled, neutralized with HCl, and extracted with Et₂O to give 3 g. 1-methyl-4-hydroxybicyclo[2.2.2]octan-2-one, b.p. 100-1°. Similarly prepared are 1-methoxy-4-hydroxybicyclo[2.2.2]octan-2-one (m. 60°) and 1-ethyl-4-hydroxybicyclo[2.2.2]octan-2-one. The products are intermediates for the manufacture of thermo-resistant polyamides.

ACCESSION NUMBER: 1966167418 CAPLUS
 DOCUMENT NUMBER: 64167418
 ORIGINAL REFERENCE NO.: 6412569-e
 TITLE: 1-Alkyl-4-hydroxybicyclo [2.2.2] octan-2-one
 INVENTOR(S): Morita, Kenichi; Nishimura, Michio
 PATENT ASSIGNEE(S): Toyo Rayon Co., Ltd.
 SOURCE: 2 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 41000427	B4	19660118	JP 19631227	19631227
PRIORITY APPLN. INFO.:			JP	19631227

IT 6849-15-6P, 1-Adamantaneglyoxylaldehyde, 3-hydroxy-5-methyl-

6859-85-4P, 1-Adamantaneglyoxylaldehyde, 3-hydroxy-

6859-86-5P, 1-Adamantaneglyoxylaldehyde, 3-methoxy-

7016-29-7P, 1-Adamantaneglyoxylaldehyde, 3-methoxy-5-methyl-

RL: PREP (Preparation)

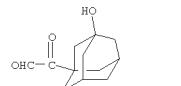
(manufacture of)

RN 6849-15-6 CAPLUS

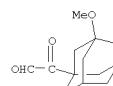
CN 1-Adamantaneglyoxylaldehyde, 3-hydroxy-5-methyl- (7CI, 8CI) (CA INDEX NAME)

RN 6859-85-4 CAPLUS
 CN 1-Adamantaneglyoxylaldehyde, 3-hydroxy- (8CI) (CA INDEX NAME)

L4 ANSWER 49 OF 49 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 6859-86-5 CAPLUS
 CN 1-Adamantaneglyoxylaldehyde, 3-methoxy- (7CI, 8CI) (CA INDEX NAME)



RN 7016-29-7 CAPLUS
 CN 1-Adamantaneglyoxylaldehyde, 3-methoxy-5-methyl- (7CI, 8CI) (CA INDEX NAME)

